



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,105	05/28/2002	Martin R Harrison	P/61802-PCT	1523

7590 11/13/2003

Kirschstein Ottinger  
Israel & Schiffmiller  
489 Fifth Avenue  
New York, NY 10017

EXAMINER	
MEDINA SANABRIA, MARIBEL	
ART UNIT	PAPER NUMBER

1754

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/048,105

Applicant(s)

HARRISON ET AL.

Examiner

Maribel Medina

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

#### **Specification**

1. The disclosure is objected to because of the following informalities: in page 7, line 18 "(LaCO<sub>3</sub>)" should be changed to --LaCoO<sub>3</sub>--. Appropriate correction is required.

#### **Claim Objections**

2. Claim 21 is objected to because of the following informalities: in lines 1 and 3 of the claim the term "hydrogen fuel" should be changed to --hydrocarbon fuel--. Appropriate correction is required. This will correct a lack of antecedent basis for the limitation that reads "the hydrocarbon fuel processor" in the last line of the claim.

#### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 21-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 recites the limitation "the hydrocarbon fuel processor" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim. (See objection above).

#### **Claim Rejections - 35 USC § 102**

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1754

6. Claims 21-24, 27-35 and 38-41 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 4,321,250 (Hart).

Regarding claims 21, 31, 32 and 41, Hart discloses a method for producing hydrogen from a hydrocarbon feedstock by partial oxidation and/or steam reforming by contacting the feedstock with a rare earth metal cobalt oxide catalyst having a perovskite crystal structure in a reactor (See col. 4, lines 40-61).

Regarding claims 22, 23, 24, 27, 28, 29, 33, 34, 35, 38, 39, and 40. Hart discloses that the catalyst comprises from 1 to 20% rhodium (instantly claimed noble metal); cobalt oxide; lanthanum and strontium (See col. 2, line 16). Regarding claim 30, the limitation would be inherently provided by the catalyst of Hart once the method is carried out. No difference is seen between the instantly claimed invention and Hart's disclosure.

7. Claims 21-41 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,447,705 (Petit et al).

Regarding claims 21, 31, 32 and 41, Petit et al disclose a method for producing hydrogen from a hydrocarbon feedstock by partial oxidation by contacting the feedstock with a rare earth metal cobalt oxide catalyst having a perovskite crystal structure in a reactor (See col. 1, lines 1-12, 62-68 and col. 2, lines 1-23).

Regarding claims 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 38, 39, and 40. Petit et al disclose a catalyst of the general formula  $\text{Ln}_x\text{A}_{1-y}\text{B}_y\text{O}_3$  in which  $0 < x < 10$  and  $0 < y < 1$  where Ln is at least one element chosen among others from strontium and lanthanum; where A and B are different from each other and are selected among others from platinum, ruthenium and cobalt. Regarding claim 30, would be inherently provided by the catalyst of Petit et al once the method

Art Unit: 1754

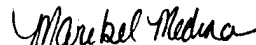
is carried out. No difference is seen between the instantly claimed invention and Petit et al disclosure.

**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maribel Medina whose telephone number is (703) 305-1928 (before 12/12/2003) or (571) 272-1355 (new telephone number starting on 12/12/2003). The examiner can normally be reached on Monday through Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837 (before 12/12/2003) or (571) 272-1358 (new telephone number starting on 12/12/2003). The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Maribel Medina  
Examiner  
Art Unit 1754